

**DEFENSE ADVANCED RESEARCH PROJECTS AGENCY
SPECIAL PROJECTS OFFICE (SPO)
PLANNED PROCUREMENTS
December 2001**

PROGRAM DESCRIPTION	FUNDING	SCHEDULE	PROGRAM MGR
MEDUSA System Development: The objective of the MEDUSA system acquisition effort is to develop and demonstrate an affordable, multifunctional, electro-optical system. The proposed MEDUSA systems must be capable of finding and countering air defense systems, while being compatible with deployment on fighter aircraft. The envisioned capability would support wide fields of view allowing full coverage around the host aircraft with a maximum of six aperture locations. There are three phases to the MEDUSA system development: (1) system design; (2) system functional demonstration in the laboratory; and (3) system brassboard demonstration via flight testing. Multiple awards are anticipated for at least the first two phases.	\$33M	PRDA-02-02-SNK Proposals due: 12/11/01 Total program: 5 years	Lt Col Gregory Vansuch SPO
Radio Frequency Micro-Electro-Mechanical (MEMS) Switches Improvement Program: Develop advanced technologies, designs, fabrication techniques, materials and packaging concepts that can be applied to the large scale manufacture of RF MEMS and related components. The purpose of this program is to explore the feasibility of fabricating low cost, highly reliable MEMS devices and components for future defense systems. The resultant devices should have performance that exceeds that afforded by competitive solutions.	TBD	PRDA-02-07-SNK Proposals due: 1/11/02 Total program: 2.5 years	Dr. Larry Corey SPO
Counter Underground Facility (CUGF) Unattended Ground Sensor System (CUGSS) and Innovative Technology Initiatives: The CUGSS objective is to develop and demonstrate monitoring and localization of critical equipment and vulnerabilities in support of CUGF characterization with the dominant focus being passive acoustic, seismic, and electro magnetic (EM) (PASEM) observables. Critical activities include power generation and operation of air ventilation systems. The performance goals are to maximize the distances at which monitoring and targeting-level localization can be achieved. This effort will demonstrate the increased performance achievable by exploiting multi-mode, distributed, clutter-limited ground sensors. CUGSS includes sensors, communications, and processing algorithms. The current solicitation is for innovative sensing technologies including: (1) exploitation of novel observables; (2) new applications of currently-exploited observables; (3) improved sensors and deployment techniques; (4) improved communications in rugged terrain; (5) exploitation algorithms and signal processing; and (6) new methods for characterizing activities associated with minimum infrastructure tunnels and caves.	TBD	BAA 2QFY02	Dr. Dan Cress SPO